

Subject: Science

Grade: Eighth

Standard: #3 The Physical Setting

**Key Concept:** The temperature and acidity of a solution influence reaction rates. Many substances dissolve in water, which may greatly facilitate reactions between them.

**Generalization:** Synthesis, decomposition and replacement are types of chemical reactions.

**Background:**

Students are halfway through their study of chemical reactions. They are familiar with atoms, atomic theory, parts of the atom, acids and bases, and the periodic table. They have just covered chemical reactions. This lesson serves as a review.

This lesson is tiered in *product* according to *learning style*.

The directions for each tier are the same: Create a product that will help other students learn about chemical reactions.

**Tier I: *Musical/Rhythmical Learners***

Products will use music or rhythm, e.g. songs, rap music.

**Tier II: *Logical/Mathematical Learners***

Products will use thinking skills, logic, and problem solving, e.g. games, puzzles.

**Tier III: *Verbal/Linguistic Learners***

Products will use written or spoken words, e.g. story, poem, newspaper article.

**Tier IV: *Interpersonal Learners***

Products will involve a level of personal engagement, e.g. interview, talk show.

**Assessment:**

Teacher observation and student interviews during the investigation will serve as formative assessments. Rubrics for each product should be designed according to the criteria necessary to complete each product type and the science involved should be assessed for accuracy. *StandardWriter* is an excellent software program for writing rubrics.

Students should share products with each other so everyone has a chance to experience someone else's product.